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NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS	3	AUG 06	FSTA enhanced with new thesaurus edition
NEWS	4	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS	5	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS	6	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS	7	AUG 27	USPATOLD now available on STN
NEWS	8	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS	9	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS	10	SEP 13	FORIS renamed to SOFIS
NEWS	11	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS	12	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS	13	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS	14	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	15	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS	16	OCT 19	BEILSTEIN updated with new compounds
NEWS	17	NOV 15	Derwent Indian patent publication number format enhanced
NEWS	18	NOV 19	WPIX enhanced with XML display format
NEWS	19	NOV 30	ICSD reloaded with enhancements
NEWS	20	DEC 04	LINPADOCDB now available on STN
NEWS	21	DEC 14	BEILSTEIN pricing structure to change
NEWS	22	DEC 17	USPATOLD added to additional database clusters
NEWS	23	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS	24	DEC 17	DGENE now includes more than 10 million sequences
NEWS	25	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS	26	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS	27	DEC 17	CA/CAplus enhanced with new custom IPC display formats
NEWS	28	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS	29	JAN 02	STN pricing information for 2008 now available
NEWS	30	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

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NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8

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FULL ESTIMATED COST	0.21	0.21

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FILE COVERS 1907 - 17 Jan 2008 VOL 148 ISS 3
FILE LAST UPDATED: 16 Jan 2008 (20080116/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/infopolicy.html

=> s (distillation or distill) and product and vapor and (COMPRESSOR OR COMPRESSED OR COMPRESS) and oxide and "compressed vapor"

61832	DISTILLATION
433	DISTILLATIONS
61991	DISTILLATION (DISTILLATION OR DISTILLATIONS)
180062	DISTN
1814	DISTNS
180811	DISTN (DISTN OR DISTNS)
200756	DISTILLATION (DISTILLATION OR DISTN)
1585	DISTILL
498	DISTILLS
2069	DISTILL (DISTILL OR DISTILLS)
1253566	PRODUCT
1473453	PRODUCTS
2377061	PRODUCT (PRODUCT OR PRODUCTS)
553180	VAPOR
73534	VAPORS
596413	VAPOR

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                (VAPOR OR VAPORS)
          24245 COMPRESSOR
          10018 COMPRESSORS
          27591 COMPRESSOR
                (COMPRESSOR OR COMPRESSORS)
          69588 COMPRESSED
           3968 COMPRESS
           2278 COMPRESSES
           6104 COMPRESS
                (COMPRESS OR COMPRESSES)
        1829519 OXIDE
         354640 OXIDES
        1929652 OXIDE
                (OXIDE OR OXIDES)
          69588 "COMPRESSED"
         553180 "VAPOR"
          73534 "VAPORS"
         596413 "VAPOR"
                ("VAPOR" OR "VAPORS")
            286 "COMPRESSED VAPOR"
                ("COMPRESSED"(W)"VAPOR")
L1            0 (DISTILLATION OR DISTILL) AND PRODUCT AND VAPOR AND (COMPRESSOR
                OR COMPRESSED OR COMPRESS) AND OXIDE AND "COMPRESSED VAPOR"

=> s (distillation or distill) and product and vapor and (COMPRESSOR OR COMPRESSED
OR COMPRESS)
          61832 DISTILLATION
            433 DISTILLATIONS
          61991 DISTILLATION
                (DISTILLATION OR DISTILLATIONS)
         180062 DISTN
           1814 DISTNS
         180811 DISTN
                (DISTN OR DISTNS)
         200756 DISTILLATION
                (DISTILLATION OR DISTN)
           1585 DISTILL
            498 DISTILLS
           2069 DISTILL
                (DISTILL OR DISTILLS)
        1253566 PRODUCT
        1473453 PRODUCTS
        2377061 PRODUCT
                (PRODUCT OR PRODUCTS)
         553180 VAPOR
          73534 VAPORS
         596413 VAPOR
                (VAPOR OR VAPORS)
          24245 COMPRESSOR
          10018 COMPRESSORS
          27591 COMPRESSOR
                (COMPRESSOR OR COMPRESSORS)
          69588 COMPRESSED
           3968 COMPRESS
           2278 COMPRESSES
           6104 COMPRESS
                (COMPRESS OR COMPRESSES)
L2            169 (DISTILLATION OR DISTILL) AND PRODUCT AND VAPOR AND (COMPRESSOR
                OR COMPRESSED OR COMPRESS)

=> l2 and oxide
L2 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
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"HELP COMMANDS" at an arrow prompt (=>).
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=> s l2 and oxide
       1829519 OXIDE
        354640 OXIDES
       1929652 OXIDE
                 (OXIDE OR OXIDES)
L3           6 L2 AND OXIDE

=> s l2 and "compressed vapor"
         69588 "COMPRESSED"
        553180 "VAPOR"
         73534 "VAPORS"
        596413 "VAPOR"
                 ("VAPOR" OR "VAPORS")
           286 "COMPRESSED VAPOR"
                 ("COMPRESSED"(W)"VAPOR")
L4          16 L2 AND "COMPRESSED VAPOR"

=> d l4 1-16 abs ibib hitstr
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L4 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB Embodiments of the invention are directed toward a novel pressurized vapor cycle for distilling liqs. In some embodiments of the invention, a liquid purification system is revealed, including the elements of an input for receiving untreated liquid, a vaporizer coupled to the input for transforming the liquid to vapor, a head chamber for collecting the vapor, a vapor pump with an internal drive shaft and an eccentric rotor with a rotatable housing for compressing vapor, and a condenser in communication with the vapor pump for transforming the compressed vapor into a distilled product. Other embodiments of the invention are directed toward heat management, and other process enhancements for making the system especially efficient.

ACCESSION NUMBER: 2007:89411 CAPLUS
DOCUMENT NUMBER: 146:145097
TITLE: Pressurized vapor cycle liquid distillation
INVENTOR(S): Bednarek, David F.; Charles, Robert Andrew; Coll, Andrew; Demers, Jason A.; Duggan, Timothy P.; Heinzman, Gustav; Hoell, Joseph A.; Jackson, James L.; Leonard, Scott A.; Mcgill, David W.; Owens, Kingston
PATENT ASSIGNEE(S): Deka Products Limited Partnership, USA
SOURCE: U.S. Pat. Appl. Publ., 82pp., Cont.-in-part of U.S. Ser. No. 713,617.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2007017192	A1	20070125	US 2006-480294		20060630
US 2004099521	A1	20040527	US 2003-713591		20031113
US 2004159536	A1	20040819	US 2003-714683		20031113
US 2005016828	A1	20050127	US 2003-713617		20031113
PRIORITY APPLN. INFO.:			US 2002-425820P	P	20021113
			US 2003-490615P	P	20030728
			US 2003-518782P	P	20031110
			US 2003-713617	A2	20031113

L4 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.: RU 2005-140398 A 20051226

L4 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB The method for separation of a mixture of the liquid components is realized in a unit including a rectification column provided with mass-exchange devices and divided by the horizontal partition into 2 sections: the enrichment section and the stripping section. The mixture of the liquid components is fed into the stripping section, the vapors obtained in the stripping section are withdrawn, compressed, and fed into the enrichment section; the liquid from the enrichment section is fed through a hydraulic seal into the stripping section of the rectification column; a portion of the bottom liquid is withdrawn in the form of a bottom product, and the remaining portion is sent into a main heat exchanger, where the distillate vapors are passed from the enrichment section of the rectification column. A portion of the resulting distillate is withdrawn in the form of a distillate product, and the remaining portion is fed back in the form of the reflux into the enrichment section of the rectification column. The vapors formed in the heat exchanger are recycled into the stripping section of the rectification column. The rectification column has: the branch pipes for feeding of the liquid and withdrawal of the vapors arranged in the stripping section; the line of the vapor intake, connected to a compressor linked with the 1st heat exchanger coupled with a branch pipe for input of the compressed vapors into the enrichment section; the branch pipe for the liquid withdrawal from the enrichment zone of the rectification column connected through the hydraulic seal and the 2nd heat exchanger with the branch pipe for the liquid input into the stripping section; the line of the bottom liquid connected to the 3rd main heat exchanger; a dephlegmator connected to the enrichment section by the line of the vapor withdrawal from the rectification column. The arrangement increases savings of heating steam, decreases atmospheric emissions, and decreases the amount of the wastewaters. The method is suitable for chemical and petrochem. industries.

ACCESSION NUMBER: 2006:1358159 CAPLUS
DOCUMENT NUMBER: 146:103112
TITLE: Separation of a mixture of liquid components by rectification
INVENTOR(S): Aristovich, V. Yu.; Charykov, N. A.; Aristovich, Yu. V.; Sokolova, E. V.; Charykov, A. N.
PATENT ASSIGNEE(S): Russia
SOURCE: Russ., 7pp.
CODEN: RUXXE7
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2290244	C1	20061227	RU 2005-140398	20051226
WO 2007086776	A1	20070802	WO 2006-RU690	20061225
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,				

L4 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB Embodiments of the invention are directed toward a novel pressurized vapor cycle for distilling liqs. In some embodiments of the invention, a liquid purification system is revealed, including the elements of an input for receiving untreated liquid, a vaporizer coupled to the input for transforming the liquid to vapor, a head chamber for collecting the vapor, a vapor pump with an internal drive shaft and an eccentric rotor with a rotatable housing for compressing vapor, and a condenser in communication with the vapor pump for transforming the compressed vapor into a distilled product. Other embodiments of the invention are directed toward heat management, and other process enhancements for making the system especially efficient.

ACCESSION NUMBER: 2004:430770 CAPLUS
DOCUMENT NUMBER: 140:411946
TITLE: Pressurized vapor cycle liquid distillation
INVENTOR(S): Bednarek, David F.; Demers, Jason A.; Duggan, Timothy P.; Jackson, James; Leonard, Scott A.; McGill, David W.; Owens, Kingston
PATENT ASSIGNEE(S): Deka Products Limited Partnership, USA
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004043566	A2	20040527	WO 2003-US36540		20031113
WO 2004043566	A3	20040826			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2506269	A1	20040527	CA 2003-2506269		20031113
US 2004099521	A1	20040527	US 2003-713591		20031113
AU 2003291547	A1	20040603	AU 2003-291547		20031113
US 2004159536	A1	20040819	US 2003-714683		20031113
EP 1562686	A2	20050817	EP 2003-768953		20031113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
CN 1738668	A	20060222	CN 2003-80108662		20031113
JP 2006507941	T	20060309	JP 2005-507175		20031113
IN 2005CN00908	A	20070810	IN 2005-CN908		20050512
MX 2005PA05245	A	20050908	MX 2005-PA5245		20050513
PRIORITY APPLN. INFO.:			US 2002-425820P	P	20021113
			US 2003-490615P	P	20030728
			US 2003-518782P	P	20031110

L4 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
WO 2003-US36540 W 20031113

L4 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB A performance anal. is presented for the vapor compression parallel feed multiple effect evaporation water desalination system. The systems include mech. (MVC) and thermal (TVC) vapor compression. The system models take into account the dependence of the stream phys. properties on temperature and salinity, thermodn. losses, temperature depression in the vapor stream caused by pressure losses and non-condensable gases, flashing within the effects, and the presence of flashing boxes. The anal. is performed as a function of the brine distribution configuration (parallel or parallel/cross flow), the top brine temperature, the temperature of the brine blowdown, and the temperature difference of the compressed vapor condensate and the brine blowdown. The anal. is focused on variations in the parameters that control the product cost, which includes the sp. heat transfer area, the thermal performance ratio, the specific power consumption, the conversion ratio, and the specific flow rate of the cooling water. Results show consistent behavior with industrial practice, where the thermal performance ratio of the TVC system decreases at higher top brine temps., while the specific power consumption of the MVC systems decreases at higher temps. Also, the sp. heat transfer area for all configurations decreases at higher operating temps. The conversion ratio is found to depend on the brine flow configuration and to be independent of the vapor compression mode. For the parallel flow configuration, the conversion ratio decreases with the increase of the operating temperature On the other hand, the conversion ratio for the parallel/cross flow system decreases with the increase of the brine blowdown temperature Predictions of both models show good agreement with field data.

ACCESSION NUMBER: 2000:458215 CAPLUS
DOCUMENT NUMBER: 133:48573
TITLE: Multiple effect evaporation-vapour compression desalination processes
AUTHOR(S): El-Dessouky, H. T.; Ettouney, H. M.; Al-Juwayhel, F.
CORPORATE SOURCE: Department of Chemical Engineering, College of Engineering and Petroleum, Kuwait University, Kuwait
SOURCE: Chemical Engineering Research and Design (2000), 78(A4), 662-676
CODEN: CERDEE; ISSN: 0263-8762
PUBLISHER: Institution of Chemical Engineers
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB The comonomer has a b.p. higher than the b.p. of the monomer and the diluent has a b.p. between the b.ps. of the monomer and comonomer. The process and apparatus employ ≥1 flash tank, a first fractionation stage including a first column and operating at a first fractionation pressure, and a second fraction stage including a second column and operating at a higher second fractionation pressure. Comonomer is withdrawn from the first column as a fractionation product, and overhead vapor containing diluent and monomer is substantially condensed to yield a substantially condensed overhead stream. Liquid and vapor from the stream are separated in an accumulator. Vapor and liquid from the accumulator are compressed and pumped, resp., for delivery to the second fractionation stage at approx. the second fractionation pressure. The pumped liquid is a major portion by weight of the total flow of pumped liquid and compressed vapor to the second fractionation stage. Diluent and monomer are withdrawn from the second column as fractionation products.

ACCESSION NUMBER: 2000:219044 CAPLUS
DOCUMENT NUMBER: 132:237505
TITLE: Process and fractionation apparatus for recovering diluent, monomer, and comonomer from a polymerization reactor effluent
INVENTOR(S): Kreischer, Bruce E.; Verser, Donald W.; Hein, James E.
PATENT ASSIGNEE(S): Phillips Petroleum Co., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6045661	A	20000404	US 1998-82398	19980520
PRIORITY APPLN. INFO.:			US 1998-82398	19980520

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB Seawater desalination by parallel feed multiple-effect evaporation has a simple layout in comparison with other multiple-effect or multistage desalination systems. Several operating configurations are analyzed, including the parallel flow (MEE-P), the parallel/cross flow (MEE-PC), and systems combined with thermal (TVC) or mech. (MVC) vapor compression. All models take into account dependence of the stream phys. properties on temperature and salinity, thermodn. losses, temperature depression in the vapor stream caused by pressure losses and the presence of non-condensable gases, and presence of the flashing boxes. Anal. was performed as a function of the number of effects, the heating steam temperature, the temperature of the brine blowdown, and the temperature difference of the compressed vapor condensate and the brine blowdown. Results are presented as a function of parameters controlling the unit product cost, which include the sp. heat transfer area, the thermal performance ratio, the specific power consumption, the conversion ratio, and the specific flow rate of the cooling water. The thermal performance ratio of the TVC and specific power consumption of the MVC are found to decrease at higher heating steam temps. Also, an increase of the heating steam temperature drastically reduces the sp. heat transfer area. Results indicate better performance for the MEE-PC system; however, the MEE-P has a similar thermal performance ratio and simpler design and operating characteristics. The conversion ratio is found to depend on the brine flow configuration and to be independent of the vapor compression mode.

ACCESSION NUMBER: 1999:745816 CAPLUS
DOCUMENT NUMBER: 131:327205
TITLE: Multiple-effect evaporation desalination systems: thermal analysis
AUTHOR(S): El-Dessouky, Hisham T.; Ettouney, H. M.
CORPORATE SOURCE: Department of Chemical Engineering, College of Engineering and Petroleum, Kuwait University, Safat, 13060, Kuwait
SOURCE: Desalination (1999), 125(1-3), 259-276
CODEN: DSLNAH; ISSN: 0011-9164
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB A preferred process is provided for separating a hydrocarbon mixture containing an alkene (i.e. C2H4 or C3H6), corresponding alkane having the same number of C atoms, and ≥1 heavier hydrocarbon component. The process comprises: feeding the hydrocarbon mixture to a 1st distillation tower having an upper reflux stage; recovering a 1st overhead vapor stream rich in alkene and alkane from the 1st distillation tower and passing the 1st overhead vapor stream to a middle distn. stage of a 2nd multistage distillation tower; recovering a 2nd overhead vapor stream rich in alkene from the 2nd distn. tower; adiabatically compressing the alkene-rich vapor stream and passing the compressed vapor to a 2nd distillation tower reboiler stage. This provides a heat pump for cooling and condensing the compressed vapor and heating a liquid reboiler stream. Pressure in the alkene stream is reduced by flashing cooled and condensed vapor from the reboiler stage to provide a partly vaporized flashed mixture stream rich in alkene, followed by recovering and separating the flashed mixture stream to provide recovering a liquid portion and vapor portion. The liquid portion is passed to a 2nd distillation tower reflux stage and a pure alkene stream is recovered.

ACCESSION NUMBER: 1995:305695 CAPLUS
DOCUMENT NUMBER: 122:109959
TITLE: Cryogenic distillation for recovering pure products from mixture of at least three close-boiling components
INVENTOR(S): Kaufman, Eric A.; Moss, Jack A.; Pickering, Jr John L.
PATENT ASSIGNEE(S): Mobil Oil Corporation, USA
SOURCE: U.S., 8 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5372009	A	19941213	US 1993-149495	19931109
CA 2174514	A1	19950518	CA 1994-2174514	19941107
WO 9513511	A1	19950518	WO 1994-US12787	19941107
W: AU, CA, CN, HU, JP, KR, NO, RU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9481330	A	19950529	AU 1994-81330	19941107
AU 675893	B2	19970220		
EP 728284	A1	19960828	EP 1995-900539	19941107
R: BE, DE, ES, FR, GB, IT, NL, PT, SE				
CN 1134748	A	19961030	CN 1994-194034	19941107
JP 09505337	T	19970527	JP 1994-513917	19941107
HU 75977	A2	19970528	HU 1996-930	19941107
NO 9601652	A	19960425	NO 1996-1652	19960425

PRIORITY APPLN. INFO.: US 1993-149495 A 19931109
WO 1994-US12787 W 19941107

L4 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB The title process involves (A) compressing a gas stream containing olefinic hydrocarbons and lower boiling components at 50-150 °F/100-500 psig, (B) cooling and partially condensing the compressed vapor stream to yield a condensate containing 1-30% lower-boiling components, (C) combining the condensate streams and flash evaporating at 0-200 psig to produce a vapor and a liquid stream, and (D) distilling the liquid stream to yield a vapor product containing substantially all of the lower-boiling components and a liquid product rich in the olefinic hydrocarbons. A significant reduction of the pressure in the distillation step is achieved and the olefinic products loss is greatly reduced. A process schematic is given.

ACCESSION NUMBER: 1990:199325 CAPLUS
DOCUMENT NUMBER: 112:199325
TITLE: Method and apparatus for C3-5 olefin recovery from a gas stream
INVENTOR(S): Andre, Robert S.
PATENT ASSIGNEE(S): Air Products and Chemicals, Inc., USA
SOURCE: U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 150,816, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4885063	A	19891205	US 1988-260345	19881019

PRIORITY APPLN. INFO.: US 1988-150816 A2 19880201

L4 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB A process for separation of alcs. (especially EtOH) from aqueous alc. solns. in a multicolumn combined distillation-rectification-dewatering process is characterized by heat transfer from the alc. vapors from distillation or dewatering columns (with a smaller temperature difference between the overheads and the bottoms than the in the rectification column) to heating surfaces of ≥1 evaporators. Gaseous alc. from the evaporators are combined with alc. vapors from the rectification column and mech. compressed, and the compressed vapors are used to heat the bottoms products of the distillation, purification, and dewatering columns.

ACCESSION NUMBER: 1986:481152 CAPLUS
DOCUMENT NUMBER: 105:81152
ORIGINAL REFERENCE NO.: 105:13155a,13158a
TITLE: Manufacture of alcohols
INVENTOR(S): Niestroj, Waldemar
PATENT ASSIGNEE(S): Krupp, Fried., G.m.b.H., Fed. Rep. Ger.
SOURCE: Ger. Offen., 15 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3428663	A1	19860206	DE 1984-3428663	19840803
DE 3428663	C2	19860717		

PRIORITY APPLN. INFO.: DE 1984-3428663 19840803

L4 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB To sep. C3H8 [74-98-6] from isobutane [75-28-5] in a feedstock containing minor amts. of other C2-4 hydrocarbons, the feed is introduced to a stripping section at 43°. A vapor stream from the stripping section (at 21° and 4 kg/cm2) is removed to a heat pump compressor where it is compressed to 18 kg/cm2 and 81°, the compressed vapors are then introduced to the bottom of a rectifying section. A vapor stream (at 54°) from the rectifying section is condensed and a portion of the condensate is refluxed. A liquid stream from the bottom of the rectifying section is introduced into the top of the stripping section. Bottoms liquid from the stripping section is taken as the isobutane product. This process consumes 50% of the energy required by conventional distillation

ACCESSION NUMBER: 1984:633023 CAPLUS
DOCUMENT NUMBER: 101:233023
ORIGINAL REFERENCE NO.: 101:35385a,35388a
TITLE: Heat pump fractionation
INVENTOR(S): Spangler, Carl D.
PATENT ASSIGNEE(S): Conoco, Inc., USA
SOURCE: Can., 13 pp.
CODEN: CAXXA4
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 1173781	A1	19840904	CA 1981-372935	19810313

PRIORITY APPLN. INFO.: CA 1981-372935 19810313

L4 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB The distillation plant has ≥2 columns. The pump for feeding the bottom product of one column into the upper part of the vent column is eliminated by placing an orifice in the line, the orifice being sized and spaced below the column bottom so as to produce selfventing. The reboiler is eliminated by compressing the overhead vapor from the downstream column and feeding it into the bottom of the upstream column. A heat exchange is provided for heat exchange between the compressed-vapor stream and the bottom-product stream downstream of the orifice. The arrangement is suitable for separating D2O and H2O.

ACCESSION NUMBER: 1982:145046 CAPLUS
DOCUMENT NUMBER: 96:145046
ORIGINAL REFERENCE NO.: 96:23865a,23868a
TITLE: Process and apparatus for fractionating close boiling components of a multicomponent system
INVENTOR(S): Tsao, Utah
PATENT ASSIGNEE(S): CE Lummus, USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4315802	A	19820216	US 1980-148977	19800512
US 4360405	A	19821123	US 1981-281536	19810708
GB 2107597	A	19830505	GB 1981-29637	19811001
GB 2107597	B	19850227		
JP 58064101	A	19830416	JP 1981-163367	19811013
JP 62022642	B	19870519		
CA 1151396	A1	19830809	CA 1981-388443	19811021

PRIORITY APPLN. INFO.: US 1980-148977 A3 19800512

L4 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB A process is described for fractionating 2 or more compds. in which the stripping section of the fractionator is maintained at a first pressure and the rectifying section of the fractionator is maintained at a higher pressure. Overhead vapors from the stripping section are compressed in a heat pump where the vapor temperature and pressure are raised and the heated and compressed vapors are fed to the bottom of the rectifying section. Overhead vapors from the rectifying section, at a higher temperature than the bottoms from the stripping section, are heat exchanged with stripping section bottoms to condense overhead vapors and to supply reboiling heat to the stripping section. Thus, a feed stream containing multiple components is fed to the stripping section at 43°. The condensed liquid recovered as product has the composition predominantly C2H4, C2H6, C3H6, C3H8 and the bottoms liquid contained substantially C4H8, isobutane, and n-butane.

ACCESSION NUMBER: 1982:8745 CAPLUS
DOCUMENT NUMBER: 96:8745
ORIGINAL REFERENCE NO.: 96:1560h,1561a
TITLE: Heat pump fractionation process
INVENTOR(S): Spangler, Carl D., Jr.
PATENT ASSIGNEE(S): Conoco, Inc., USA
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4277268	A	19810707	US 1979-85825	19791017
EP 60357	A1	19820922	EP 1981-301159	19810318
R: DE, FR, GB, IT, NL				
JP 57165003	A	19821009	JP 1981-50687	19810406

PRIORITY APPLN. INFO.: US 1979-85825 19791017

L4 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB In fractional distillation, vapors from each stage are compressed to a pressure at which the b.p. temperature equals the temperature from which the vapors came, and the compressed vapors are fed to the next stage where partial condensation occurs isothermally resulting in min. entropy increase. In an example, a H2SO4 plant effluent stream, containing 5.25 SO2 at 8 atm, is cleaned, cooled to 86°F, and absorbed in H2O to form a solution containing 0.006 mole fraction SO2. This solution is fed to the top section of a 4-stage packed stripping tower at 40°F as 4500 lb/hr stripping steam per 114,000 gallons/hr of feed are fed into the bottom section. Vapors are compressed by interstage compressors from an initial 34 to 50, 140, and 256 mm Hg, resp., in passing upwards through the stages. Final tower product contains 87 SO2. Liquid flows countercurrently through the packed sections for removal at the tower bottom. Interstage compressor horsepower requirements are 90, 300, and 180, resp. to produce 323 lb moles/hr of SO2 and 49 lb moles H2O. Also described is a system for separating propane and propylene in a 33-stage rectifying and 22-stage stripping section tower at top and bottom temps. of -30 and -40°F, resp., with top and bottom pressures of 1.8 and 1.1 atm, resp. Interstage compression is effected by fans.

ACCESSION NUMBER: 1971:423256 CAPLUS
DOCUMENT NUMBER: 75:23256
ORIGINAL REFERENCE NO.: 75:3679a,3682a
TITLE: Isothermal fractional distillation of materials of differing volatilities
INVENTOR(S): Gunther, Arnold
PATENT ASSIGNEE(S): Treadwell Corp.
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3575007	A	19710413	US 1968-716188	19680326
GB 1250236	A	19711020	GB 1969-1250236	19690318
BE 730474	A	19690901	BE 1969-730474	19690326
NL 6904660	A	19690930	NL 1969-4660	19690326
DE 1915437	A	19691113	DE 1969-1915437	19690326
FR 2004777	A5	19691128	FR 1969-8919	19690326
CH 487662	A	19700331	CH 1969-487662	19690326
NO 127039	B	19730430	NO 1969-1276	19690326
SE 361824	B	19731119	SE 1969-4272	19690326

PRIORITY APPLN. INFO.: US 1968-716188 A 19680326

L4 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB The process of U.S. 2,-600,110 (CA 46, 8358h), which is based on the heat-pump principle, is improved by passing a major portion of the compressed vapors of the kettle product refrigerant to the kettle section of the fractionator and compressing the rest of the vapors in a 2nd compression step so that they are condensed by available cooling water, thus increasing the efficiency of heat transfer. The improved process is particularly adapted to the separation of C2H4 from C2H6, C3H6 from C3H8, and C4H8 from C4H10.

ACCESSION NUMBER: 1966:57911 CAPLUS
DOCUMENT NUMBER: 64:57911
ORIGINAL REFERENCE NO.: 64:10793d-e
TITLE: Fractional distillation
INVENTOR(S): Palen, Joseph W.; Moon, John J.
PATENT ASSIGNEE(S): Phillips Petroleum Co.
SOURCE: 5 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3229471		19660118	US 1961-160066	19611218

PRIORITY APPLN. INFO.: US 19611218

L4 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB The kettle product is employed as an internal refrigerant by expanding it and using it to cool the overhead product. Energy is supplied to the system by means of a compressor which compresses that portion of the kettle product which cools the overhead condenser. This compressed vapor is fed to the kettle portion of the column to provide stripping-section vapor. This method of supplying energy is competitive with conventional heating with steam if the cost of electricity used in running the compressor is no more than four times the cost of steam. This method is particularly appropriate in the case of a relatively difficult separation, such as C2H4-C2H6, butadiene-2-butene, C3H6-C3H8, and N-CH4. It may also be applied to vaporizable materials such as C5-C8 hydrocarbons or even higher-boiling materials. Cf. C.A. 46, 8358h.

ACCESSION NUMBER: 1956:34474 CAPLUS
DOCUMENT NUMBER: 50:34474
ORIGINAL REFERENCE NO.: 50:6846i,6847a-b
TITLE: Fractional distillation
INVENTOR(S): Hachmuth, Karl H.
PATENT ASSIGNEE(S): Phillips Petroleum Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2731810		19560124	US	

L4 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB Dilute aqueous solns. of oxygenated organic compds. produced as secondary products in the Fischer-Tropsch process are concentrated by fractional distillation in two stages. The first fractionating column contains a relatively small number of plates and is operated so as to produce a bottoms fraction consisting essentially of water. The enriched overhead fraction is compressed in a compressor driven by a steam turbine. The compressed vapors enter a heat-exchanger where they are condensed, supplying their heat of vaporization to the reboiler of the column. Part of the resulting liquefied overhead is returned to the column as reflux and the remainder is fed to a second column containing a relatively large number of plates. This column produces an overhead fraction of the desired final concentration, the bottoms being essentially water. The entire process is controlled by varying the degree of compression in accordance with the composition of the liquid on an intermediate tray in the second column, the degree of compression decreasing as the concentration of oxygenated compds. increases. Thus, the second column is operated to produce the desired separation between water and oxygenated products, while the first column is automatically controlled to supply the maximum quantity of oxygenated products which the second column is capable of concentrating The exhaust steam from the turbine is used to preheat the feed to the system and to supply heat to the reboiler of the second column. Thus, all the necessary heat is supplied in the steam to the turbine.

ACCESSION NUMBER: 1950:37230 CAPLUS
DOCUMENT NUMBER: 44:37230
ORIGINAL REFERENCE NO.: 44:7100h-i,7101a-b
TITLE: Process and apparatus for concentrating dilute solutions
INVENTOR(S): Cornell, P. W.
PATENT ASSIGNEE(S): Gulf Oil Corp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2509136		19500523	US 1949-99788	19490617

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=> log hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    92.32      92.53

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -12.80     -12.80

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STN INTERNATIONAL SESSION SUSPENDED AT 13:45:32 ON 17 JAN 2008
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